



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 6, 2024

LICENSEE: Holtec Decommissioning International, LLC

FACILITIES: Palisades Nuclear Plant

SUBJECT: SUMMARY OF MAY 15, 2024, MEETING WITH HOLTEC DECOMMISSIONING INTERNATIONAL, LLC REGARDING LICENSE AMENDMENT REQUEST TO APPROVE THE BIASI CRITICAL HEAT FLUX CORRELATION FOR USE WITH THE MAIN STEAM LINE BREAK ANALYSIS TO SUPPORT POTENTIAL REAUTHORIZATION OF POWER OPERATIONS AT PALISADES NUCLEAR PLANT (EPID L-2024-LLA-0071)

On May 15, 2024, an Observation meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Holtec Decommissioning International, LLC (HDI, the licensee) via webinar. The meeting included an open session and a closed session. The purpose of the meeting was for the licensee to discuss with the NRC staff a proposal to approve the Biasi Critical Heat Flux (CHF) Correlation for use with the Main Steam Line Break (MSLB) Analysis at the Palisades Nuclear Plant to support potential restart. The meeting notice and agenda is available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML24134A174. A list of attendees is provided as an Enclosure. The licensee's slide presentation is also available in ADAMS at package Accession No. ML24130A144.

The licensee began the presentation stating that their purpose was to present a proposed change to the Palisades Nuclear Plant (PNP) operating license basis, solicit NRC staff questions and comments and to provide a schedule for the proposed submittal and requested review. The licensee explained that the proposed PNP licensing basis change would adopt the Framatome topical report (TR) EMF-2310 (P)(A), Revision 1, Supplement 2P-A, Revision 0, "SRP [Standard Review Plan] Chapter 15 Non-Loss of Coolant Accident Methodology for Pressurized Water Reactors" (ADAMS Accession No. ML23109A086 April 10, 2023) to perform the MSLB analysis. EMF-2310, Revision 1, Supplement 2 was approved by the NRC in 2023. To provide background for the NRC staff, the licensee stated that PNP's initial MSLB analysis was performed in accordance with EMF-2310, Revision 1 (ADAMS Accession No. ML041810031 June 17, 2004). The licensee further explained that they were notified by Framatome of a PNP deviation associated with CHF correlations utilized for MSLB analyses as described in the supplement 2 to EMF-2310.

During the presentation, the licensee clarified that the existing PNP CHF correlation based on EMF-2310, Revision 1 was non-conservative for Palisades High Thermal Performance (HTP) spacer grid fuel. In addition, the MSLB analysis as approved by the EMF-2310 supplement 2 is based on a new Biasi CHF correlation. Therefore, due to the change in the CHF correlations in the approved supplement 2 to EMF-2310, the licensee needed to submit a license amendment request (LAR) to adopt the revised CHF correlation for the PNP MSLB analysis. The approved

LAR would be used to fully incorporate the revised MSLB analysis into the PNP licensing basis because this was not done prior to the plant shutdown in May 2022. The licensee also explained that Framatome provided Technical Report ANP-4083 Revision 0, "Applicability of Biasi Critical Heat Flux Correlation to Palisades Fuel" in January 2024 as the justification for the extension of TR EMF-2310 Supplement 2 to PNP fuel. More specifically, ANP-4083 is used to extend the applicability of an HTP design limit for the Biasi CHF correlation for use in the safety analyses of Palisades HTP Combustion Engineering (CE) 15 x 15 fuel design. Regarding the proposed LAR, the licensee provided descriptions and technical evaluation of the proposed change, regulatory and environmental evaluations, and details about technical report ANP-4083. In summary, the licensee is seeking NRC Staff approval to incorporate the Biasi CHF correlation methodology EMF-2310 Supplement 2 into PNP MSLB post-scrum licensing basis.

Regarding the proposed change, the proposed license amendment would 1) incorporate EMF-2310 Supplement 2 into the list of analytical methods in the core operating limits Report (COLR), 2) revise PNP UFSAR Chapter 14.14 MSLB analysis to include newly approved Biasi methodology, and 3) include EMF-2310 into the PNP Technical Specification 5.6.5 list of methods to allow for future NRC approved revisions to be listed in the COLR. The licensee concluded the presentation by going over project schedule, including status of submittals that were previously submitted, as well dates for future submittals. The licensee stated that they planned to submit the Biasi CHF Correlation in May 2024 and request approval by June 2025. During the meeting the NRC staff sought clarification on the availability of data to justify application of the Biasi correlation to the PNP HTP CE 15 x 15 fuel design and the intended scope of ANP-4083. On May 24, 2024 (ADAMS package Accession No. ML24145A143), the licensee submitted the LAR requesting approval of the Biasi CHF Correlation for use with the Palisades MSLB analysis. The LAR was accepted on June 18, 2024 (ADAMS Accession No. ML24169A434) and is currently under NRC staff's review.

Members of the public were in attendance and some of them had comments for the NRC staff. There were comments in favor of the licensee moving forward with the project for reasons related to providing local jobs, tax revenue, and a clean energy source. Others were against the licensee moving forward with the project for reasons such as it being too risky and the plant being too old. Also, there were questions regarding the use of the decommissioning funds, reactor vessel head and steam generator integrity, environmental impacts, and overall project cost and how it will be funded.

No Public Meeting Feedback Forms were received.

Please direct any inquiries to Ngola Otto at 301-415-6695, or via email at [Ngola.Otto@nrc.gov](mailto:Ngola.Otto@nrc.gov).

*/RA/*

Ngola Otto, Project Manager  
Licensing Project Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-255

Enclosure:  
List of Attendees

cc: Listserv

LIST OF ATTENDEES  
MAY 15, 2024, MEETING WITH HOLTEC DECOMMISSIONING INTERNATIONAL LLC  
REGARDING LICENSE AMENDMENT REQUEST TO APPROVE THE BIASI CRITICAL HEAT  
FLUX CORRELATION FOR USE WITH THE MAIN STEAM LINE BREAK ANALYSIS TO  
SUPPORT POTENTIAL REAUTHORIZATION OF POWER OPERATIONS AT PALISADES  
NUCLEAR PLANT

NRC Participants:

- Jamie Pelton, Deputy Director, Office of Nuclear Reactor Regulation (NRR), Division of Operating Reactor Licensing (DORL)
- Jason Kozal, Director, Region 3 (RIII), Division of Operating Reactor Safety (DORS)
- Phil McKenna, Deputy Director, NRR, Division of Reactor Oversight (DRO)
- Kevin Heller, Nuclear Engineer, Division of Safety Systems (DSS), Nuclear Methods and Fuel Analysis Branch (SFNB)
- Robert Beaton, Senior Nuclear Engineer, DSS, Nuclear Systems Performance Branch (SNSB)
- Matthew Hamm, Safety and Plant Systems Engineer, DSS, Technical Specifications Branch (STSB)
- Clint Ashley, Safety and Plant Systems Engineer, DSS, STSB
- Jeff Whited, Branch Chief, NRR, DORL, Plant Licensing Branch 3 (LPL3)
- Justin Poole, Project Manager, NRR, DORL, LPL3
- Sophie Holiday, Senior Emergency Response Coordinator, Office of Nuclear Security and Incident Response (NSIR), Division of Preparedness and Response (DPR), Coordination Branch
- Laura Willingham, Environmental Project Manager, Office of Nuclear Material Safety and Safeguards (NMSS), Division of Rulemaking, Environmental, and Financial Support (REFS), Environmental Review New Reactors Branch (ENRB)
- Mary Richmond, Environmental Project Manager, NMSS, REFS, ENRB
- Marlayna Doell, Project Manager, NMSS, Division of Decommissioning, Uranium Recovery, and Waste Programs (DUWP), Reactor Decommissioning Branch (RDB)
- Michael Spencer, Office of General Counsel
- Scott Burnell, Public Affairs Officer
- Carleen Parker, OE
- April Nguyen, RIII
- Viktoria Mitlyng, Senior Public Affairs Officer, RIII
- Carolyn Wolf, Congressional Affairs Officer

Holtec Decommissioning International, LLC:

- Jean Fleming, Vice President of Licensing, Regulatory Affairs and PSA
- James Miksa, Licensing Engineer

Framatome

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- Tom Palmisano
- James Zoss
- Michael Gallagher
- Terry Alsterda
- Gregg Baustian
- Jan Boudart
- Mitchell Boatman
- Kate Chenier
- Brandon Clark
- Cyler Conrad
- Nicholas Culp
- Lisa Roose-Church
- Emma Duncan
- David Eyke
- Darby Fetzer
- Sheldon Krause
- Rebecca Lowy
- Tom Flynn
- Tim Goergen
- Dillon Reed
- Kathy Wagaman
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**ADAMS Accession Nos.:**

**Package: ML24212A061**

**Meeting Slides: ML24130A145**

**Meeting Notice: ML24134A174**

**Meeting Summary: ML24212A059**

**NRC-001**

OFFICE	NRR/DORL/LLPB/PM	NRR/DORL/LPL3/LA	NRR/DORL/LPL3/BC	NRR/DORL/LPPB/PM
NAME	NOtto	SRohrer	JWhited	NOtto
DATE	8/5/2024	8/5/2024	8/6/2024	8/6/2024

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